
CIRM grantees convert skin to nerves, a step toward therapies for neurological disease

Posted: May 27, 2011

Created: 27/05/2011 - 08:24

Last year a group of CIRM grantees at Stanford University directly converted mouse skin cells into neurons, bypassing the need to first convert those cells into an embryonic-like state. Now they've gone a step farther, pulling off the same feat with human cells. They published the work in the May 26 *Nature*.

Krista Conger at Stanford University blogged about that work , quoting senior author Marius Wernig:

“ We are now much closer to being able to mimic brain or neurological diseases in the laboratory. We may perhaps even be able to one day use these cells for human therapies. This past year has seen a number of scientists managing to convert adult cells directly into other adult cell types as we blogged about here. Recent reports about immune rejection of iPS cells makes this work even more interesting because the direct conversion bypasses the need to create iPS cells. As Conger writes:

“ Interestingly, this direct conversion technique may offer a way around the recently reported rejection of genetically identical iPS cells by laboratory mice. That unexpected finding, which I blogged about a couple of weeks ago, has researchers worried about the potential therapeutic value of the cells. But preliminary investigations suggested that the immune response was targeted at proteins used to make the original cells pluripotent, which shouldn't be an issue with this approach. That said, Wernig isn't ready to give up on iPS cells. He's part of a CIRM disease team that aims to use genetically modified iPS cells to treat the deadly skin condition epidermolysis bullosa. Here's a link to a summary about that epidermolysis bullosa disease team award, and a link to a videos of the team describing their approach to the CIRM governing board last year.

A.A.

Tags: Neurobiology, Wernig, Stanford University

Source URL: <https://www.cirm.ca.gov/blog/05272011/cirm-grantees-convert-skin-nerves-step-toward-therapies-neurological-disease>